

**ABSTRACT**

This invention provides the sequence of 5,299 nucleotides from the *E. canis* genome. There are four proteins, ProA, ProB, MmpA, and a cytochrome oxidase homolog, as well as a partial lipoprotein signal peptidase homolog at the carboxy terminus, coded for in this cloned fragment. The antigenic properties of these proteins allow them to be used to create a vaccine. An embodiment of this invention includes the creation of a DNA vaccine, a recombinant vaccine, and a T cell epitope vaccine. Another embodiment of this invention includes the use of serological diagnosis techniques.

FOOTNOTES